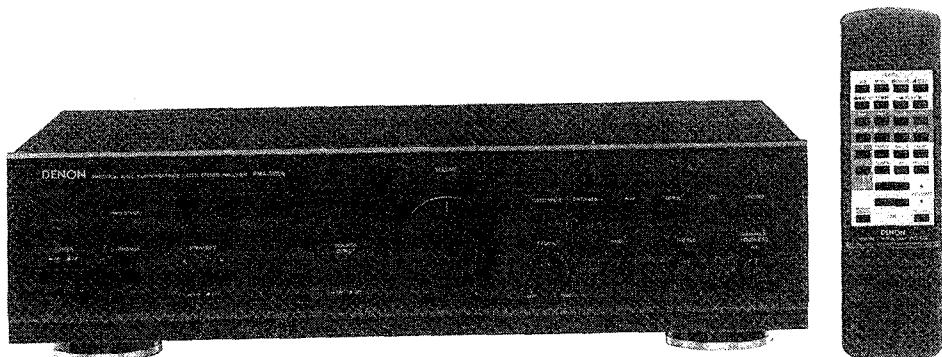


DENON

SMPMA525R - 216
S.MANUAL PMA525R
- 1 -

Hi-Fi Integrated Stereo Amplifier

SERVICE MANUAL MODEL PMA-525R INTEGRATED STEREO AMPLIFIER



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NIPPON COLUMBIA CO., LTD.

SAFETY INSTRUCTIONS



CAUTION
ISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

BOULIE MODELE CANADIEN L'INNOVATION

ATTENTION

POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREEES A FOND SANS LAISSER AUCUNE PARTIE A DECOUVERT

ANDA MODELL ONI V

CAUTION

TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ZWEI FÜR EURONÄSSE MODELLIE

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Die DENON Electronic GmbH

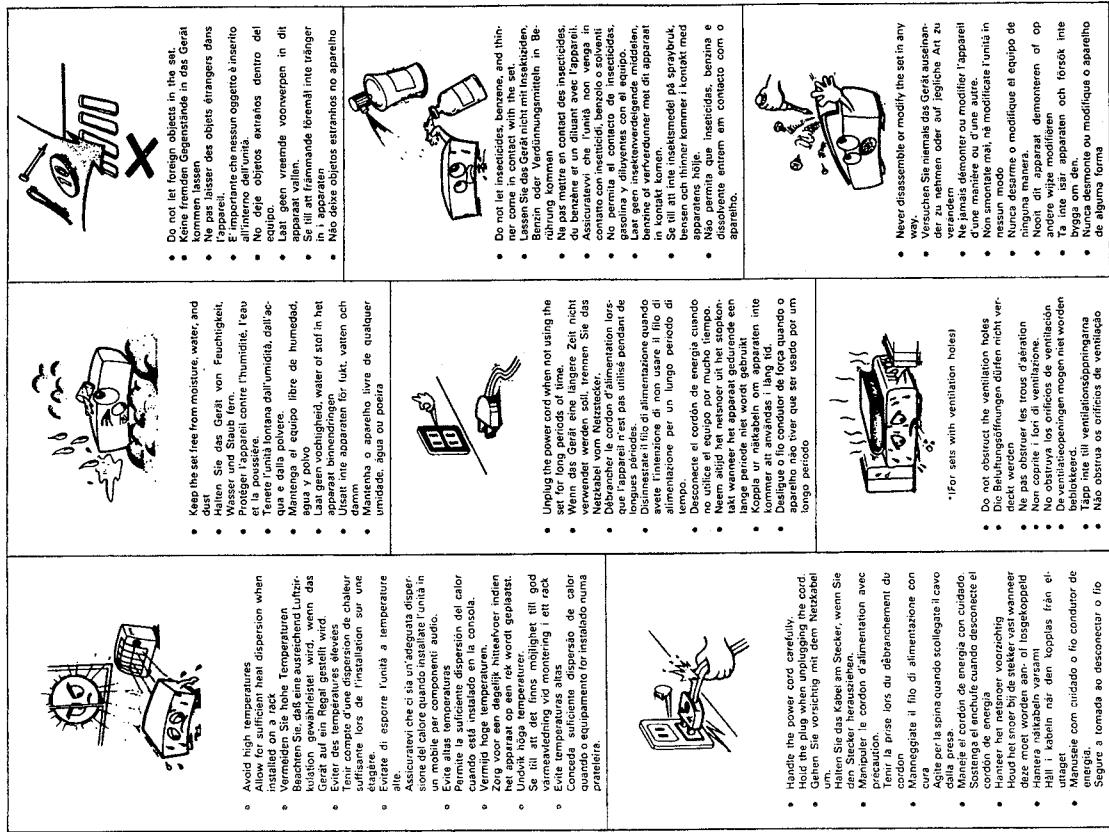
Erklärt als Hersteller/Importeur, daß das in dieser Bedienungsanleitung beschriebene Gerät den Technischen Vorschriften für Ton- und Fernseh-Funkensicherungslängen nach der Amtsblattverfügung 868/1989 (Amtsblatt des Bundesministers für Post und Telekommunikation vom 31.8.1989) entspricht.

1901 entspricht.

Grounding or polarization. Regulations should be taken so that the grounding or polarization means of an appliance is not defeated.

1. Read Instructions – All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions – The safety and operating instructions should be retained for future reference.
3. Heed Warnings – All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions – All operating and use instructions should be followed.
5. Water and Moisture – The appliance should not be used near water – for example, near a bathtub, washtub, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, and the like.
6. Carts and Stands – The appliance should be used only with a cart or stand that is recommended by the manufacturer.
7. Wall or Ceiling Mounting – The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. Power Sources – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
12. Power-Cord Protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
13. Cleaning – The appliance should be cleaned only as recommended by the manufacturer.
14. Power Lines – An outdoor antenna should be located away from power lines.
15. Outdoor Antenna Grounding – If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code (ANSI/NFPA 70) provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna-discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.
16. Nonuse Periods – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
17. Object and Liquid Entry – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
18. Damage Requiring Service – The appliance should be serviced by qualified service personnel when:
 - A. The power-supply cord or the plug has been damaged; or
 - B. Objects have fallen, or liquid has been spilled into the appliance; or
 - C. The appliance has been exposed to rain; or
 - D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
 - E. The appliance has been dropped, or the enclosure damaged.
19. Servicing – The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

**NOTE ON USE/HINWEISE ZUM GEBRAUCH/OBSERVATIONS RELATIVES A L'UTILISATION
NOTE SULL'USO/NOTAS SOBRE EL USO/ALVORES TE GEBRUIKEN/OBSERVERA
OBSERVACOES QUANTO AO USO**



NOTE:

1. Mantenga siempre activado el interruptor de alimentación (POWER) en la unidad principal.
2. Encienda y apague el equipo desde la unidad de control remoto.
3. Usando el cable de alimentación para el uso por un período prolongado de tiempo, desconecte el cable de alimentación.

CAUTION:

If only the MUTE/STANDBY LED is lit, this means that the power is turned off from the remote control unit. Turn the power on from the remote control unit.

HINWEIS:

1. Lassen Sie den Netzschalter (POWER) am Hauptgerät stets eingeschaltet.
2. Schalten Sie den Strom mit dem Fernbedienungsgerät ein- und aus.
3. Trennen Sie das Netzkabel vom Netz ab, wenn Sie die Beleuchtung, das Gerät oder einen längeren Zeitraum hinweg nicht zu benutzen.

VORSICHT :

Wann nur die Stummenschalt-/Bereitschafts-LED (MUTE/STANDBY LED) leuchtet, so bedeutet dies, dass der Strom vom Fernbedienungsgeräte aus abgeschnitten werden ist. Schalten Sie den Strom vom Fernbedienungsgeräte aus.

REMARQUE:

1. S'assurer que le commutateur d'alimentation (POWER) sur l'unité principale soit toujours dans la position active.

2. Allumer et éteindre l'appareil avec la télécommande.

3. Débrancher le cordon d'alimentation lorsque l'appareil ne utilise pendant une longue période.

ATTENTION:

Si seul le témoin (LED) de sourdine/veille (MUTE/STANDBY) est allumé, cela signifie que l'appareil est mis hors circuit par la télécommande. Allumer l'appareil avec la télécommande.

NOTA:

1. Mantenga siempre activado el interruptor (POWER) de la unidad principal.
2. Encienda y apague a corriente a partir de la unidad de control remoto.
3. Desconecte el cable de alimentación cuando no utilice la unidad por largo tiempo.

OBSERVA:

1. La alひt Strom vom Netz mit dem Fernbedienungsgeräte aus.
2. Schalten Sie die Strom mit dem Fernbedienungsgeräte aus.
3. Koppla bort nätetilkoblin om apparaten inte skal användas under lång tid.

WARNING:

Om endast MUTE/STANDBY-lampan lyser belyder det att strömmen har stängts av via fjärrkontrollen. Strömmen måste då sättas på via fjärrkontrollen igen.

CAUTELA:

Se sparet se illuminare o LED de surdina/vergolha (MUTE/STANDBY), isto significa que a forca se desligou a partir do control remoto. Ligue a forca a partir do control remoto.

NOTA:

1. Tene sempre l'interruttore della corrente (POWER) dell'unità principale nella posizione di attivazione.

2. Accende e spegne la corrente usando il telecomando.

3. Scollega il cavo di alimentazione quando avete intenzione di non usare l'apparecchio per un lungo periodo.

AVVERTIMENTO:

Se sono illuminati solo i LED di attenuazione/attesa (MUTE/STANDBY), questo significa che la corrente è stata spenta a causa del telecomando. Riaccende la corrente usando il telecomando.

PRECAUTIONS FOR INSTALLATION

Leave at least 10 cm of space between this unit and any other component placed above.

SICHERHEITSMASSNAHMEN BEIM EINBAU

Legen Sie eine Kabelstütze von 10 cm zwischen diesem Gerät und der anderen Komponente, die daraufgestellt wird.

PRECAUCIONES D'INSTALLATION

Prévoir un espace d'au moins 10cm entre l'unité et tout autre appareil trouvant au-dessus.

PRECAZIONI PER L'INSTALLAZIONE

Lasade uno spazio libero di almeno 10 cm fra questa unità e qualsiasi altro componente che è collocato sopra la stessa.

PRECAUCIONES PARA LA INSTALACION

Dejar por lo menos 10 cm de espacio entre esta unidad y cualquier otro componente situado sobre ella.

VOORZORGSMATIGELEN

Plaats de kabelhouder minstens 10 cm tussen dit apparaat en een ander apparaat.

CUIDADOS NA INSTALACAO

Deixe um espaço de pelo menos 10 cm entre esta unidade e qualquer outro componente colocado acima.

PRECAZIONI PER L'INSTALLAZIONE

Lasade uno spazio libero di almeno 10 cm fra questa unità e qualsiasi altro componente che è collocato sopra la stessa.

PRECAUCIONES PARA LA INSTALACION

Dejar por lo menos 10 cm de espacio entre esta unidad y cualquier otro componente situado sobre ella.

PRECAZIONI PER L'INSTALLAZIONE

Lasade uno spazio libero di almeno 10 cm fra questa unità e qualsiasi altro componente que è collocato sopra la stessa.

CONNECTIONS
ANSCHLÜSSE
CONNEXIONS
CONNESSIONI

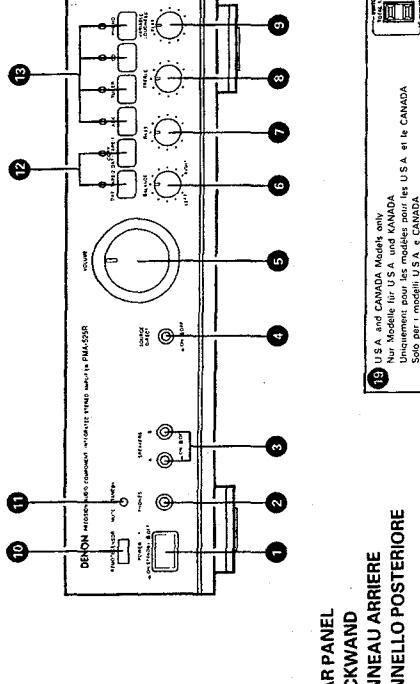


Fig. 1
Abbr. 1

LINE VOLTAGE (Voltage select switch) . . . For Multi-voltage model only The voltage select switch, with the VOLTAGE SELECTOR KNOB on the back panel using a screw driver. Do not twist the VOLTAGE SELECTOR KNOB with excessive force. It may be damaged. The voltage select switch does not turn smoothly. See qualified serviceman.

① GND		② PHONO		③ CD, TUNER, AUX		④ DAT/TAPE, ⑤ DAT/TAPE, ⑥ TAPE PB, ⑦ TAPE REC		⑧ SPEAKERS	
GND		Phono Input Terminals (Phono)		Input Terminals (CD, TUNER, AUX)		Phono and Recording Terminals • Phono Terminals • Recording Terminals		Speaker Terminals	
GND		Schaltleitungspeisung Eingangsschutzen (Phono)		Eingangsbuchsen (CD, TUNER, AUX)		Tohrband-Ein/Ausgabe • Wiedergabe • Aufnahme		Lautsprecher- Klemmen	
GND		Bornes d'entrée (phono)		Bornes d'enrôle (CD, TUNER, AUX)		Bornes de lecture et d'enregistrement • Bornes de lecture • Bornes d'enregistrement		Bornes de hau- pypairs	
GND		Terminali di ingresso (CD, TUNER, AUX)		Terminali di ingresso (CD, TUNER, AUX)		Terminali di riproduzione e registrazione • Terminali di registrazione • Terminali di riproduzione		Terminali degli altoparlanti	

FRONT PANEL
FRONTPLATTE
PANNEAU AVANT
PANNELLO ANTERIORE

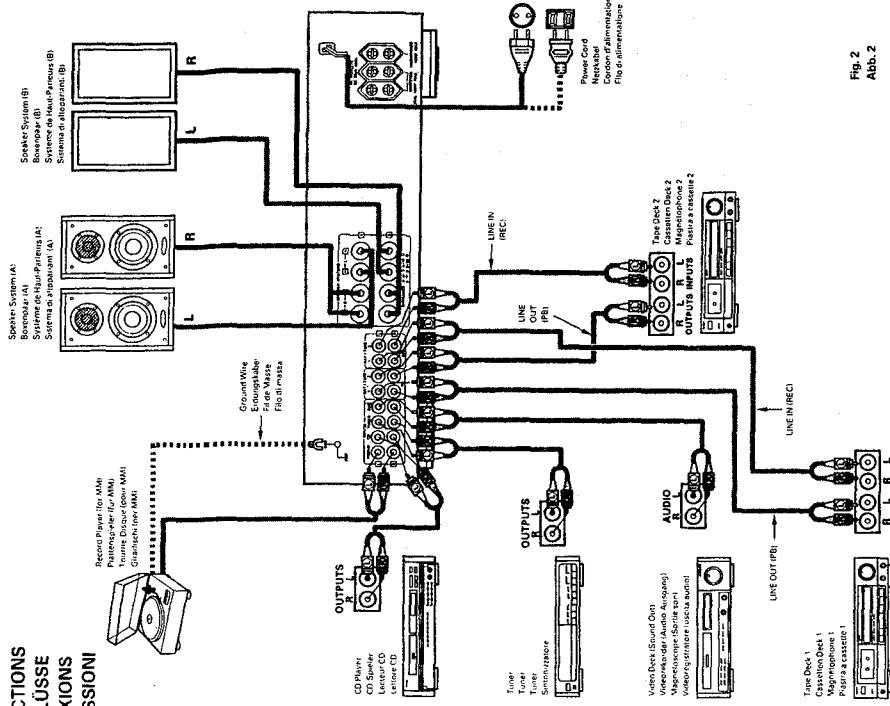


Fig. 2
Abb. 2

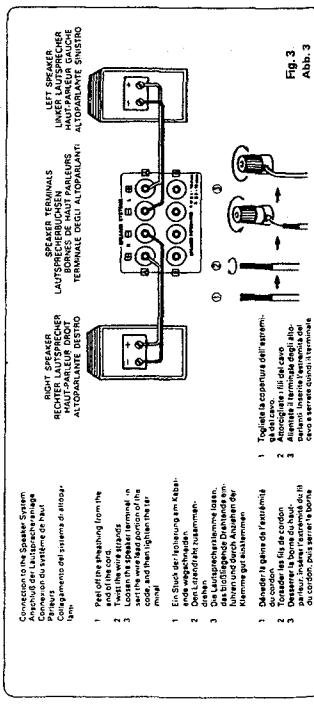


Fig. 3.
Abb. 3

DESIGNATIONS AND FUNCTIONS OF PANEL CONTROLS

① POWER (Power Switch)
When the power switch is turned ON (▲), the MUTE/STANDBY LED (1) lights.
When the power switch is turned ON, power is supplied to the unit. It takes a few seconds after the power is turned on for the unit to warm up. This is due to the built-in muting circuit that eliminates noise during the on/off operation.

② PHONES (Headphone Jack)
This jack is used to plug in the headphones.

③ SPEAKERS (Speaker Selection Switch)
The PMA-525R can be connected to two speaker systems: speaker system A and speaker system B.
When A is pressed, the speaker system connected to speaker output terminals A operates.
When B is pressed, the speaker system connected to speaker output terminals B operates.
When A and B are pressed on together, both speaker systems operate simultaneously. When the A and B switches are both off (in the out position), there is no output from the speaker terminals. This setting is used to listen to playback through the headphones.

④ SOURCE DIRECT (Source Direct Switch)
The controls (BALANCE, VARIABLE LOUDNESS, and TONE) can be used when this switch is in the OFF (■) position.
When set to the ON (▲) position, the above controls are by-passed and the signals are input directly to the volume control circuit, providing high quality sound.

⑤ VOLUME (Volume Control)
This knob controls the overall volume level.
Turn the knob to the right (▲) to raise the volume and to the left (▼) to lower it.

⑥ BALANCE (Balance Control)
This knob is used to adjust the balance between the left and right channels. When it is set to the center position, the amplitude of the amplifier is equal on both sides. If there is a difference in the left and right channel output voltages for a cartridge, move the knob to the left and the right to adjust it. If the volume on the right side is too low, turn the knob to the right (▲). If the volume on the left side is too low, turn the knob to the left (▼). This will achieve an even balance on the left and right sides.

⑦ BASS (Bass Control)
This knob is used to control the bass quality of the sound. When the knob is set at the center position, the frequency characteristics are flattened in the range below 1000 Hz. The bass is emphasized as the knob is moved off center to the right (▲), and reduced as it is moved to the left (▼).

⑧ TREBLE (Treble Control)
This knob is used to control the treble quality of the sound. When the knob is set at the center position, the frequency characteristics are flattened in the range above 1000 Hz. The treble is emphasized as the knob is moved off center to the right (▲), and reduced as it is moved to the left (▼).

⑨ AC OUTLETS: Rear Panel Side

AC outlets are used for connecting amplifier component units, such as tuner, turntable, tape deck, etc.

- SWITCHED (Total capacity: 120 W):
These outlets are turned ON/OFF when main power switch and POWER button on the Remote Control Unit is turned on/off.
- UNSWITCHED (Capacity: 240 W):
This outlet is always ON whether power switch is on or OFF.
- For Europe model, except the U.K. and Australia models:
AC outlets are used for connecting amplifier component units, such as tuner, turntable, tape deck, etc.
- SWITCHED (Total capacity: 100 W):
These outlets are turned ON/OFF when main power switch and POWER button on the Remote Control Unit is turned on/off.
- UNSWITCHED (Capacity: 100 W):
This outlet is always ON whether power switch is on or OFF.

⑩ REMOTE SENSOR (Remote Control Sensor)
This sensor receives the infra-red light transmitted from the wireless remote control unit.
For remote control, point the wireless remote control unit towards the sensor.

⑪ MUTE/STANDBY LED
This LED flashes while the muting circuit is activated when the power is turned on and when muting is turned on from the remote control unit, and remains lit (without flashing) while the power is on. In addition, this LED flashes rapidly when the protection circuit is activated.

⑫ TAPE SELECTOR (Tape Selector/Monitor Buttons)

- COPY/DAT/TAPE-1:
Press this button once, COPY/DAT/TAPE-1 indicator will light up and then you can play tape play tape source on DAT/TAPE-1 terminal. In this state you can copy COPY/DAT/TAPE-1 source to DAT/TAPE-2 terminal. Press again the button currently accessed, to play sources selected by input selector (1), indicator goes out.
- DAT/TAPE-2:
Press this button once, DAT/TAPE-2 indicator will light up and then you can play tape or video source of DAT/TAPE-2 terminal. Press again the button currently accessed, to play sources selected by input selector (1), indicator goes out.

⑬ INPUT SELECTOR (Input Select Switch)
Use these to select the program source. When the switch for the desired program source is selected, its LED lights. One program source only can be selected at a time, as follows:

- PHONO: Use this position when using the record player connected to the PHONO jacks. The record player should have an "MM" cartridge.
- CD: Use this position when using the CD player, etc. connected to the CD jacks.
- TUNER: Use this position when using the tuner, etc., connected to the TUNER jacks.
- AUX: Use this position when using the component connected to the AUX jacks.

RECEPTION OF RADIO PROGRAMS

1. Set the INPUT SELECTOR switch (2) to "TUNER".
2. Operate the tuner to receive a radio program.
3. Turn the volume and tone controls to yield an appropriate volume and sound quality.

CONNECTIONS OF AUDIO EQUIPMENT TO AUX TERMINALS

1. Set the INPUT SELECTOR switch (2) to "AUX".
2. Operate the Audio equipment Systems.
3. Turn the volume and tone controls to yield an appropriate volume and sound quality.

PLAYBACK WITH TAPE DECK

1. Set the TAPE MONITOR switch (3) to "COPY/DAT/TAPE-1" or "DAT/TAPE-2".
2. Operate the Tape Deck.
3. Turn the volume and tone controls to yield an appropriate volume and sound quality.

RECORDING WITH TAPE DECK

The source to be recorded is selected by the INPUT SELECTOR switch (1).

COPYING FROM ONE TAPE TO ANOTHER

To copy from COPY/DAT/TAPE-1 to DAT/TAPE-2, press the COPY/DAT/TAPE-1 switch (2).

NOTE:
Copying is not possible from DAT/TAPE-2 to COPY/DAT/TAPE-1.

PREPARATION

1. CHECKING CONNECTIONS

- Make sure that all the connections are proper by referring to the back panel. (Fig. 2-3)
- Check the polarity (positive and negative) of connections, and the directivity of stereo separation (right cord to right channel terminal, and left cord to left channel terminal).
- Check the directivity of pin cord connection.

2. SETTING OF EACH KNOB

- Turn the volume control knob (3) counterclockwise, to left.
- Set the rotary knob to "flat" or "center position".
- Set SOURCE DIRECT (4) to "OFF (■)".
- Press the TAPE MONITOR switch (2) to turn the LED off.
- Turn on the speaker selection switch for desired speaker system (A or B).

After clicking the above items, turn on the power, the amplifier is set in the ready mode in a few seconds.

PLAYBACK OF CD PLAYER

1. Set the INPUT SELECTOR switch (2) to "CD".
2. Operate the CD player.
3. Turn the volume and tone controls to yield an appropriate volume and sound quality.

CAUTION

Protective Circuit
This set is equipped with a high speed protective circuit. This circuit protects the internal circuitry from damage due to large currents flowing when the speaker jacks are not completely connected or when an output is generated by a short circuit. This protective circuit's operation cuts off the output to the speakers. In such a case, be sure to turn the power to the set off and check the connections to the speakers. Then turn the power on again. After waiting for a few seconds, the set will operate normally.

4.1 Building mediation models: the process of multistep regression

ZUR U.S.A. und Kanada

- **Specifications and contents are subject to change without notice for purposes of improvement.**

• Änderungen des Inhalts und der technischen Daten zum Zwecke der Verbesserung vorbehalten.

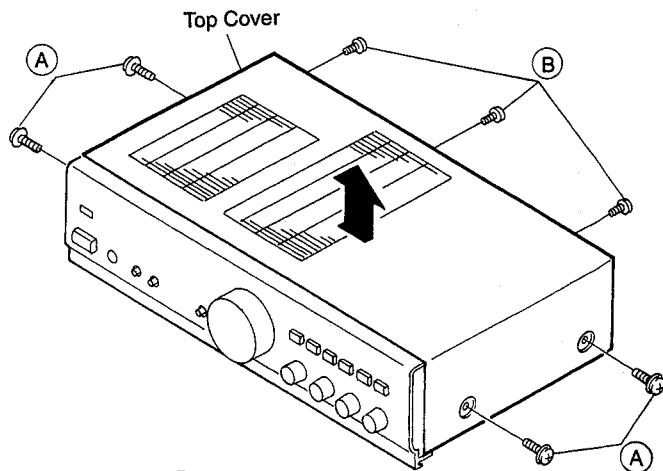
- Spécifications et contenu sont sujets à modification sans préavis.

ENGLISH	<p>Please check to make sure the following items are included with the main unit in the carton:</p> <table> <tr> <td>(1) Operating Instructions</td><td>1</td></tr> <tr> <td>(2) Remote Control Unit (RC-176)</td><td>1</td></tr> <tr> <td>(3) Batteries RSP (AA)</td><td>2</td></tr> </table>		(1) Operating Instructions	1	(2) Remote Control Unit (RC-176)	1	(3) Batteries RSP (AA)	2
(1) Operating Instructions	1							
(2) Remote Control Unit (RC-176)	1							
(3) Batteries RSP (AA)	2							
DEUTSCH	<p>Bite überprüfen Sie, ob die folgenden Teile vollständig in der Verpackung enthalten sind:</p> <table> <tr> <td>(1) Bedienungsanleitung</td><td>1</td></tr> <tr> <td>(2) Fernbedienung (RC-176)</td><td>1</td></tr> <tr> <td>(3) Batterien vom Typ RSP (AA)</td><td>2</td></tr> </table>		(1) Bedienungsanleitung	1	(2) Fernbedienung (RC-176)	1	(3) Batterien vom Typ RSP (AA)	2
(1) Bedienungsanleitung	1							
(2) Fernbedienung (RC-176)	1							
(3) Batterien vom Typ RSP (AA)	2							
FRANÇAIS	<p>Veuillez contrôler que les articles suivants sont bien joints à l'appareil principal dans le carton:</p> <table> <tr> <td>(1) Mode d'emploi</td><td>1</td></tr> <tr> <td>(2) Unité de télécommande (RC-176)</td><td>1</td></tr> <tr> <td>(3) Pièces RSP (AA)</td><td>2</td></tr> </table>		(1) Mode d'emploi	1	(2) Unité de télécommande (RC-176)	1	(3) Pièces RSP (AA)	2
(1) Mode d'emploi	1							
(2) Unité de télécommande (RC-176)	1							
(3) Pièces RSP (AA)	2							
ITALIANO	<p>Controllare che le parti seguenti si trovino imballate con l'apparecchio nella scatola di spedizione.</p> <table> <tr> <td>(1) Libretto delle istruzioni</td><td>1</td></tr> <tr> <td>(2) Telecomando (RC-176)</td><td>1</td></tr> <tr> <td>(3) Batterie RSP (AA)</td><td>2</td></tr> </table>		(1) Libretto delle istruzioni	1	(2) Telecomando (RC-176)	1	(3) Batterie RSP (AA)	2
(1) Libretto delle istruzioni	1							
(2) Telecomando (RC-176)	1							
(3) Batterie RSP (AA)	2							
ESPANOL	<p>Por favor verifique asegurandose de que los siguientes artículos son empacados en la caja pero separados de la unidad principal.</p> <table> <tr> <td>(1) Manual de instrucciones</td><td>1</td></tr> <tr> <td>(2) Unidad de control remoto (RC-176)</td><td>1</td></tr> <tr> <td>(3) Pilas RSP (AA)</td><td>2</td></tr> </table>		(1) Manual de instrucciones	1	(2) Unidad de control remoto (RC-176)	1	(3) Pilas RSP (AA)	2
(1) Manual de instrucciones	1							
(2) Unidad de control remoto (RC-176)	1							
(3) Pilas RSP (AA)	2							
NEDERLANDS	<p>Kontroleer of de volgende accessoires bij het hoofdtoestel in de doos zijn verpakt:</p> <table> <tr> <td>(1) Bedienungshandleiding</td><td>1</td></tr> <tr> <td>(2) Afstandsbediening (RC-176)</td><td>1</td></tr> <tr> <td>(3) Batterijen RSP (AA)</td><td>2</td></tr> </table>		(1) Bedienungshandleiding	1	(2) Afstandsbediening (RC-176)	1	(3) Batterijen RSP (AA)	2
(1) Bedienungshandleiding	1							
(2) Afstandsbediening (RC-176)	1							
(3) Batterijen RSP (AA)	2							
SVENSKA	<p>Kontrollera att följande föremål finns med i kartongen.</p> <table> <tr> <td>(1) Bruksanvisning</td><td>1</td></tr> <tr> <td>(2) Fläckkontroll (RC-176)</td><td>1</td></tr> <tr> <td>(3) Batterier RSP (AA)</td><td>2</td></tr> </table>		(1) Bruksanvisning	1	(2) Fläckkontroll (RC-176)	1	(3) Batterier RSP (AA)	2
(1) Bruksanvisning	1							
(2) Fläckkontroll (RC-176)	1							
(3) Batterier RSP (AA)	2							
PORTEUGUESE	<p>Confirme-se de que as seguintes peças estão incluídas na embalagem para da unidade principal:</p> <table> <tr> <td>(1) Instruções de operação</td><td>1</td></tr> <tr> <td>(2) Unidade de controlo remoto (RC-176)</td><td>1</td></tr> <tr> <td>(3) Baterias RSP (AA)</td><td>2</td></tr> </table>		(1) Instruções de operação	1	(2) Unidade de controlo remoto (RC-176)	1	(3) Baterias RSP (AA)	2
(1) Instruções de operação	1							
(2) Unidade de controlo remoto (RC-176)	1							
(3) Baterias RSP (AA)	2							

REMOVAL OF EACH SECTION

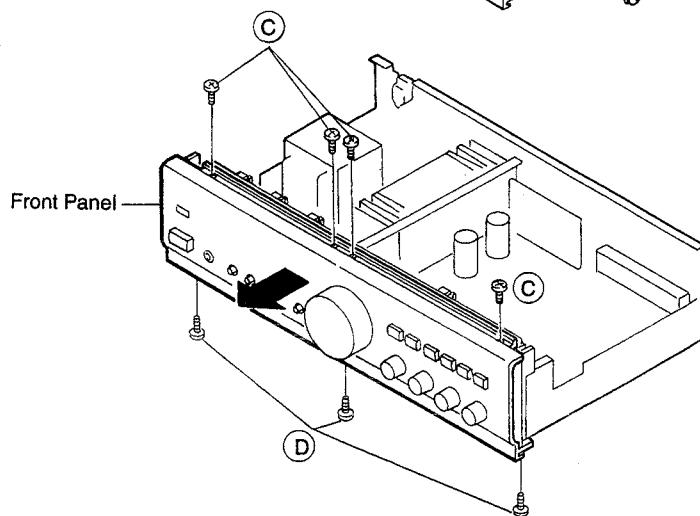
● Top Cover

- 1) Remove 4 screws (A) and 3 screws (B).
- 2) Pull up Top Cover in arrow direction.



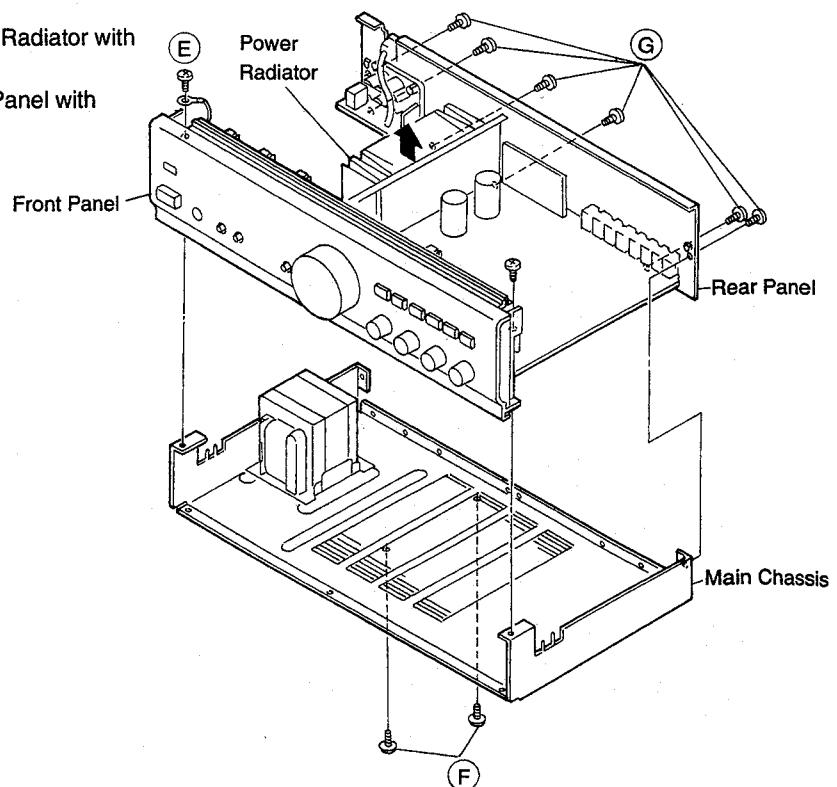
● Front Panel

- 1) Remove 4 screws (C).
- 2) Remove 3 screws (D).
- 3) Detach Front Panel in arrow direction.



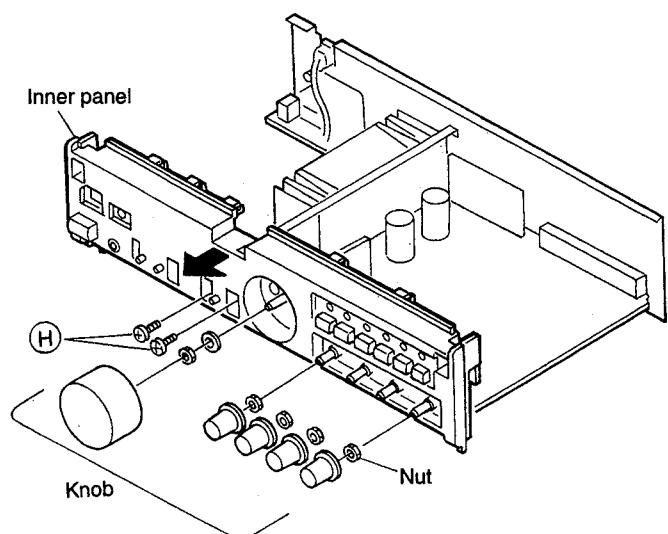
● Main Chassis

- 1) Remove 2 screws (E).
- 2) Remove 2 screws (F) securing Power Radiator with Main Chassis.
- 3) Remove 6 screws (G) securing Rear Panel with Main Chassis.



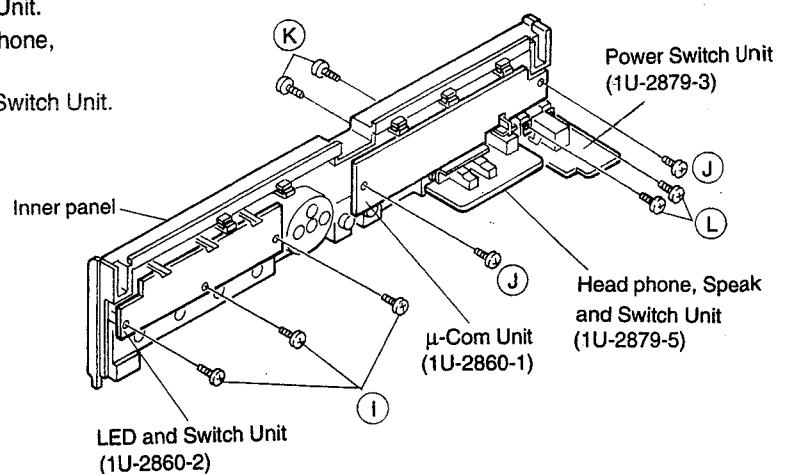
● Inner Panel

- 1) Remove 5 Knobs and 5 nuts.
- 2) Remove 2 screws (H), and detach Inner Panel in arrow direction.

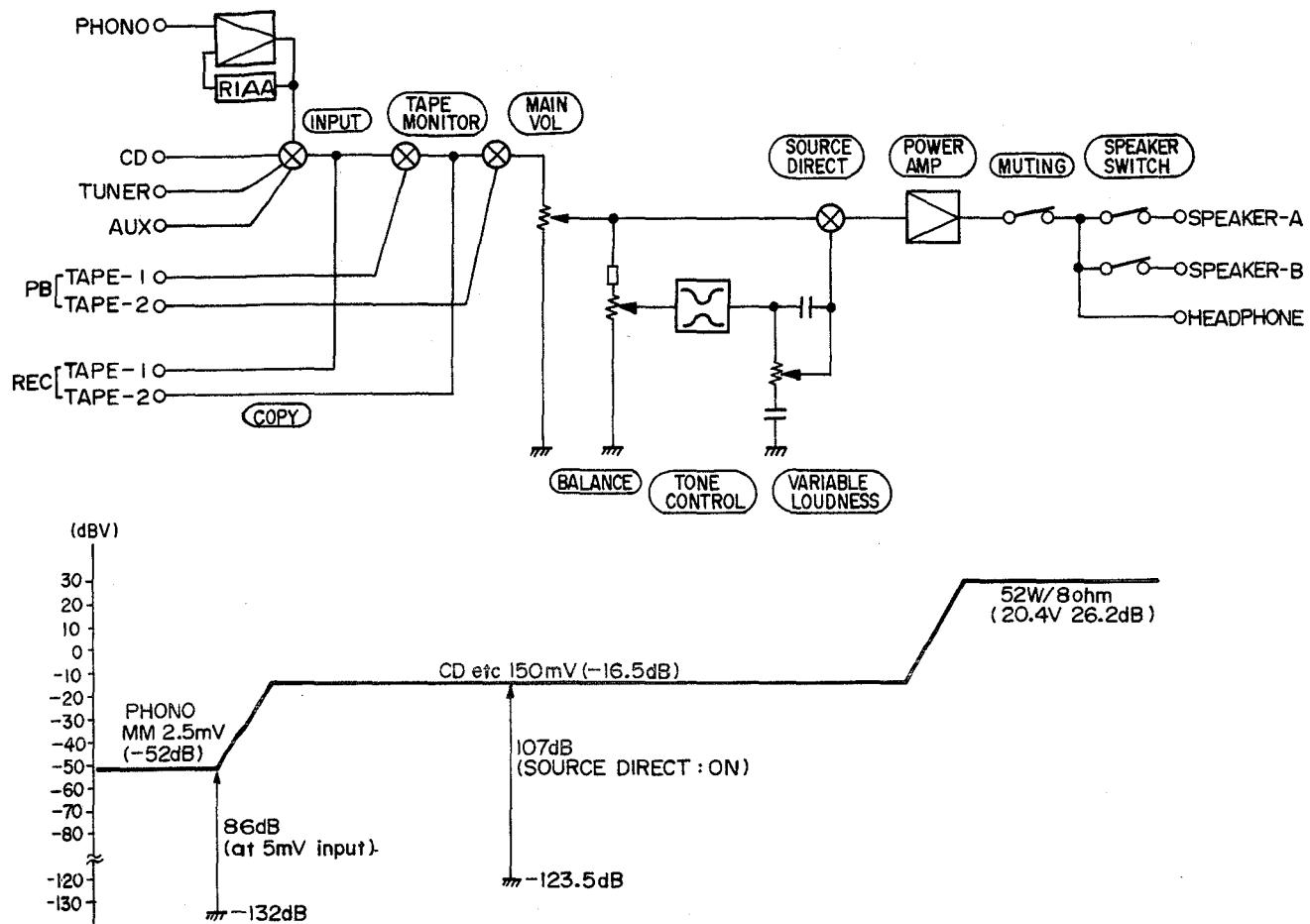


● Each Unit of Inner Panel

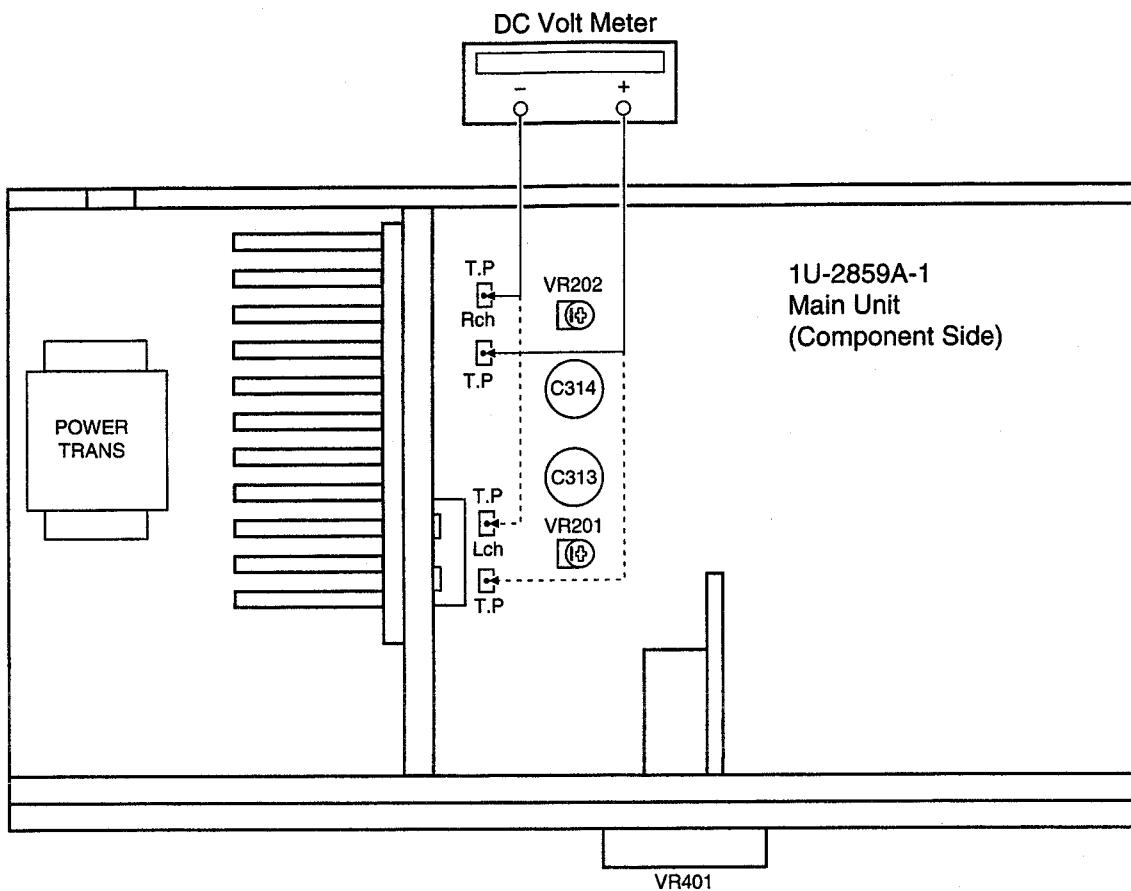
- 1) Remove 3 screws (I), and detach LED and Switch Unit.
- 2) Remove 2 screws (J), and detach μ -Com Unit.
- 3) Remove 2 screws (K), and detach Head phone, SP Switch Unit.
- 4) Remove 2 screws (L), and detach Power Switch Unit.



BLOCK AND LEVEL DIAGRAM



METHOD OF ADJUSTMENTS



IDLING CURRENT

● Setup

1. Lay the unit at an ordinary position away from a direct current from a cooler or fan. Do the adjustment at a temperature between 15°C (59°F) and 30°C (86°F).
2. Set controls as follows.
 - POWER SWITCH → OFF (■)
 - VOLUME CONTROL → fully counterclockwise. (○) min. [Main volume (VR401) and Semifixed resistors (VR201...Lch, VR202...Rch)]
 - SPEAKER Terminals → open: do not connect the speakers, dummy load etc.

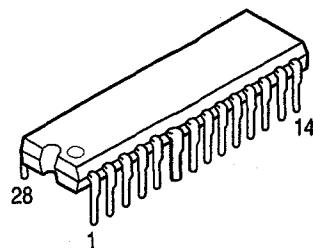
● Adjustment

1. Remove Top cover. And then connect DC Voltmeter to Test points of 1U-2859A1 (Main Unit).
2. Connect Power cord to AC wall outlet, and turn Power Switch "on" (■). Within 10 seconds turn VR201 (Lch) and VR202 (Rch) clockwise so that DC voltmeter reads $17 \pm 3\text{mV DC}$.
3. Then after 2 minutes warm up adjust VR201 and VR202 so that the DC Voltmeter reads $17 \pm 3\text{mV DC}$.
4. And after 10 minutes warm up adjust VR201 and VR202 so that the DC Voltmeter reads $11 \pm 3\text{mV DC}$.

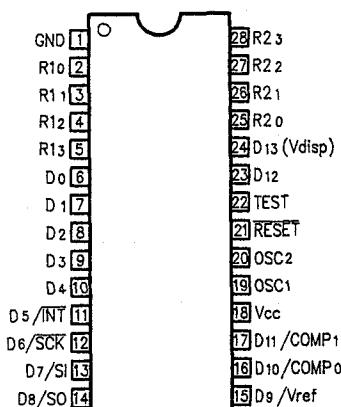
SEMICONDUCTORS

● IC's

HD404222 (IC101)



HD404222 Terminal Function



Pin No.	Symbol	Typ	Opt	I/O	Res	Ini	Act	Det	Function
1	GND	—	—	—	—	—	—	—	Ground.
2	PHONO	B	IU	O	Hz	H	L	—	LED drive output for function indication.
3	CD	B	IU	O	Hz	H	L	—	LED drive output for function indication.
4	TUNER	B	IU	O	Hz	H	L	—	LED drive output for function indication.
5	AUX	B	IU	O	Hz	H	L	—	LED drive output for function indication.
6	VOLUME UP	B	IU	O	Hz	L	H	—	Volume drive output.
7	VOLUME DOWN	B	IU	O	Hz	L	H	—	Volume drive output.
8	NC	B	IU	I	Hz	L	—	—	Connect to ground.
9	B-DOWN	B	IU	I	Hz	H	L	Lv	Power supply stop detection input.
10	PROTECTION	B	IU	I	Hz	H	L	Lv	Protecting detection input.
11	REMOCON	B	IU	I	Hz	H	L	Ed	Remote control signal input.
12	CK	B	IU	O	Hz	L	H	—	Analog function switch control output (clock).
13	ST	B	IU	O	Hz	L	H	—	Analog function switch control output (chip select).
14	DATA	B	IU	O	Hz	L	H	—	Analog function switch control output (data).
15	VREF	—	—	—	—	—	—	—	Reference voltage input for comparator.
16	KEY IN	B	IU	I	Hz	—	—	Alg	Button signal input (analog).
17	NC	B	IU	I	Hz	L	—	—	Connect to ground.
18	Vcc	—	—	—	—	—	—	—	Power supply.
19	OSC1	—	—	I	—	—	—	—	Xtal input.
20	OSC2	—	—	O	—	—	—	—	Xtal output.
21	RESET	—	EU	I	L	H	H	—	Reset signal input.
22	—	—	—	I	—	—	—	—	—
23	POWER ON/OFF	B	IU	O	Hz	H	L	—	Power ON/OFF shift output (L: Power ON).
24	MUTING	B	IU	O	Hz	H	H	—	Mute signal output (H: mute ON).
25	NC	B	IU	O	Hz	L	—	—	Connect to ground.
26	MUTE/STANDBY	B	IU	O	Hz	H	L	—	LED drive output for Mute/Standby indication.
27	TAPE2	B	IU	O	Hz	H	L	—	LED drive output for function indication.
28	TAPE1	B	IU	O	Hz	H	L	—	LED drive output for function indication.

Note:

Typ (Type): B=NMOS open drain.

Opt (Option): IU=internal pull up, EU=external pull up.

Port state: Res=reset, Ini=standby, Act=active.

Det: Lv=level, Ed=edge, Alg=analog.

I/O: Port input / output for defined name (I: Input, O: Output).

Res: Show port state at reset (H: High level, L: Low level, Hz: High impedance).

Opt: ★U: Pull up, ★D: Pull down.

Det: Show operating condition of input port (Lv: Detect level, Ed: Detect edge).

Ini: Show input / output port initialization (H: High level, L: low level).

Act: Show port state at operating.

PRINTED WIRING BOARD (Pattern Side)

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8

1U-2859A MAIN UNIT ASS'Y

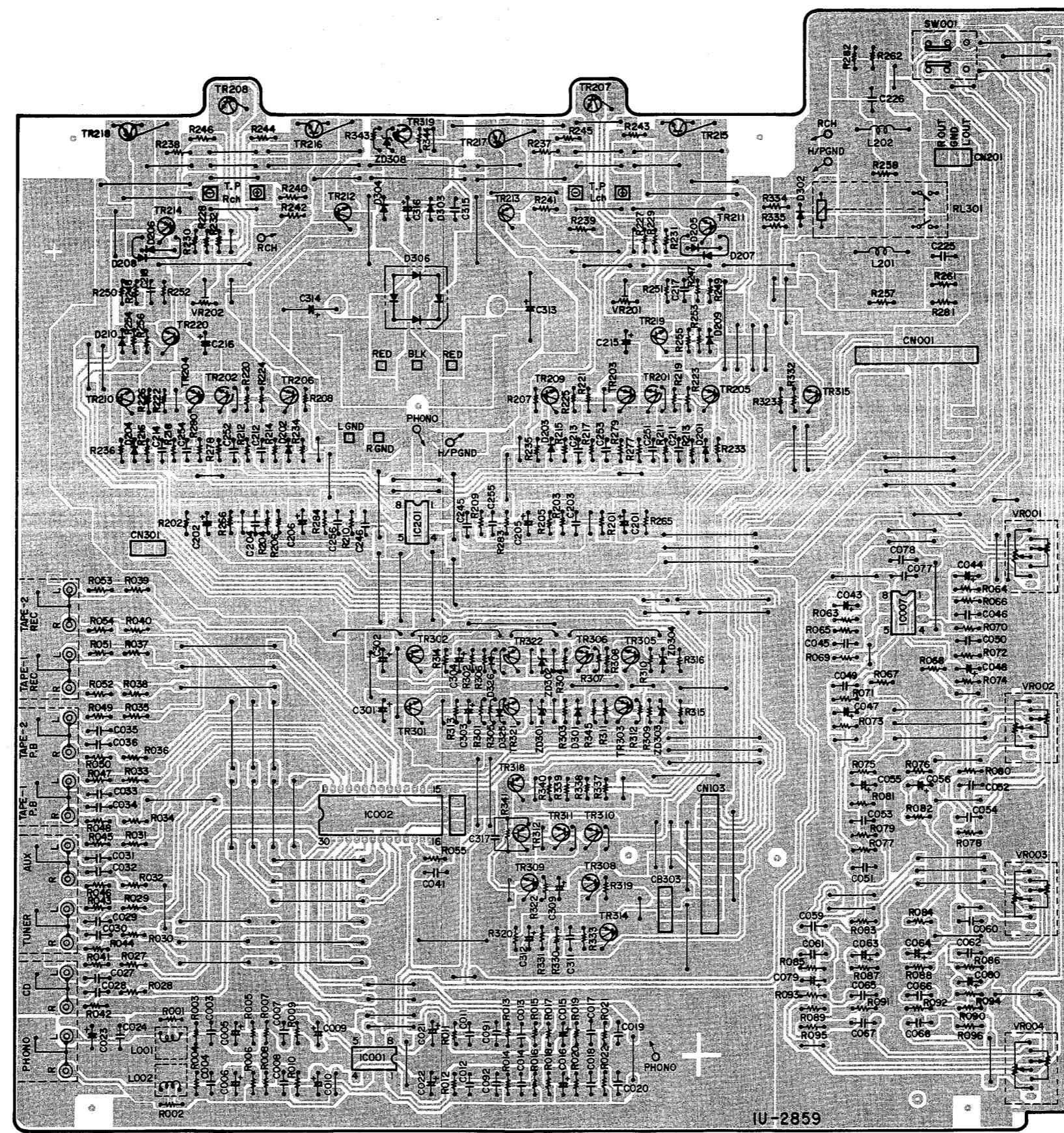
A

6

0

1

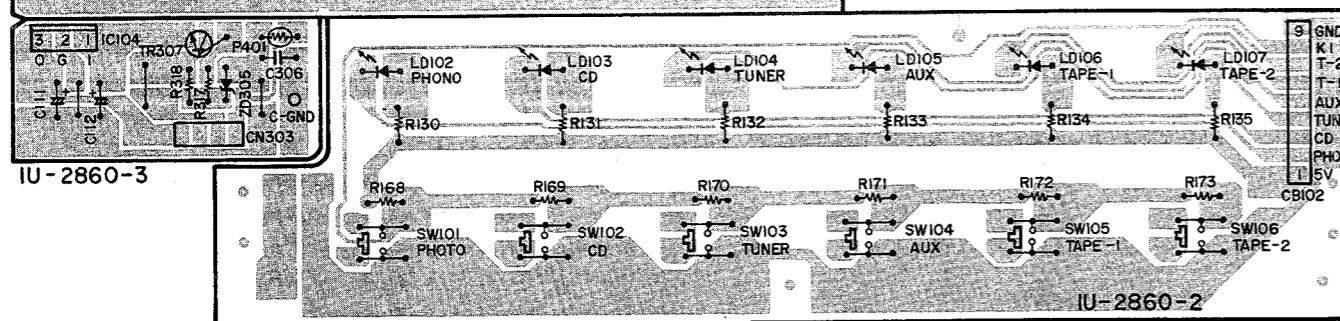
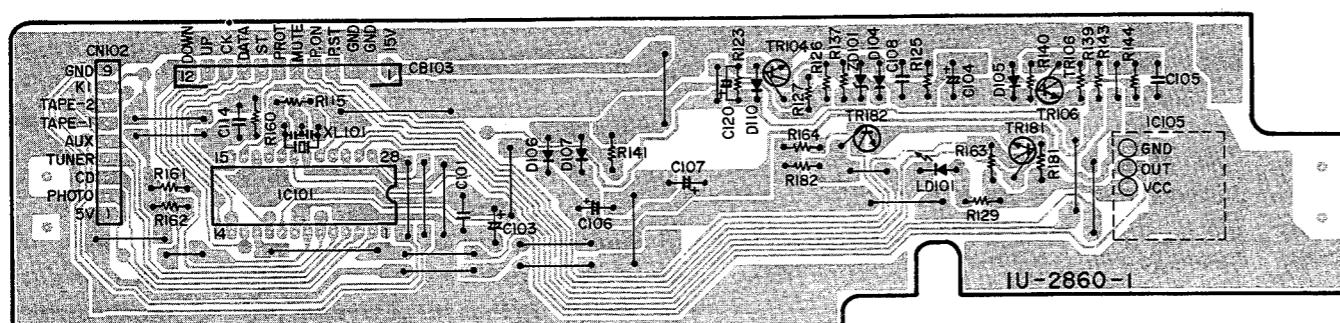
6



1 2 3 4 5 6 7 8

1U-2860A μ -COM UNIT ASS'Y

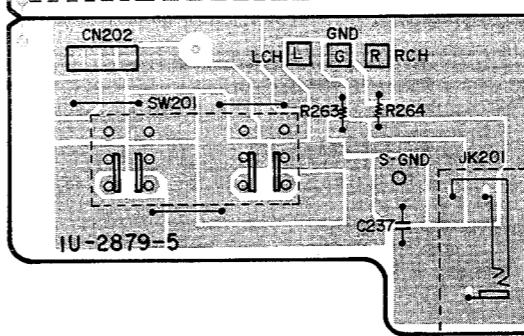
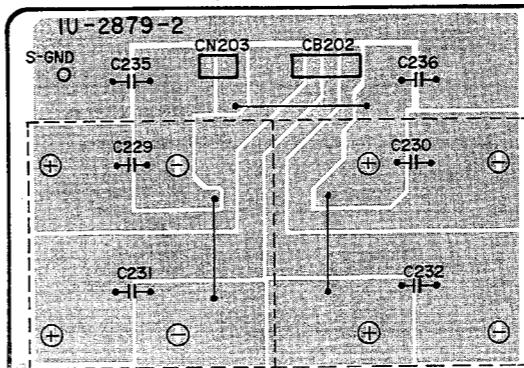
1U-2860A μ -Com Unit Ass'y	
1	μ -Com Unit
2	LED, Switch Unit
3	Regulator Unit



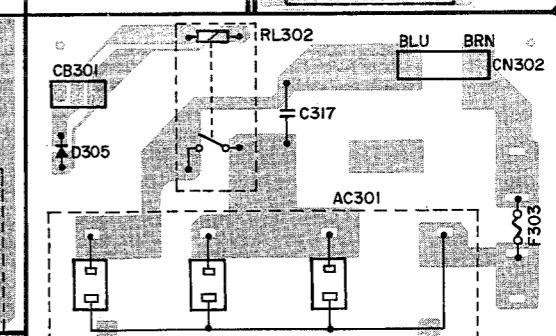
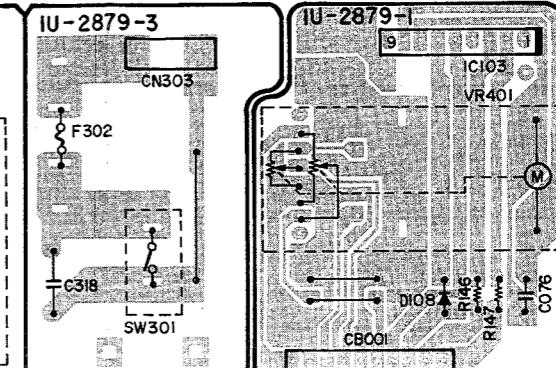
IU-2860-3

1U-2879A VOLUME UNIT ASS'Y

1U-2879 Volume Unit Ass'y	
1	Volume Unit
2	SP terminal Unit
3	Power Switch Unit
4	AC Outlet Unit
5	Head Phone, SP SW Unit



IU-2879-3



Version	Unit No.	F302	F303	F304	SP terminal	AC outlet
Black for Europe	1U-2879A	T1A/250V	T1A/250V	—	205 0952 009	203 3950 002
Gold for Europe	1U-2879A	T1A/250V	T1A/250V	—	205 0952 009	203 3950 002
U.S.A. & Canada	1U-2879D	5A/125V	8A/125V	—	2050952009	2033926007
U.K. & Australia	1U-2879E	T1A/250V	—	—	2050952009	—

PARTS LIST OF P.W.B. ASS'Y

1U-2859A MAIN UNIT ASS'Y

NOTE FOR PARTS LIST

- Part indicated with the mark "◎" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.
- Not including Carbon Film ±5%, 1/4W Type in the P.W.Board parts list. (Refer to the Schematic Diagram for those parts.)

WARNING:

Parts marked with this symbol  have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

• Resistors

Ex.: RN 14K 2E 182 G FR
Type Shape Power Resist- Allowable Others

RD : Carbon	2B : 1/8W	F : ±1%	P : Pulse-resistant type
RC : Composition	2E : 1/4W	G : ±2%	NL : Low noise type
RS : Metal oxide film	2H : 1/2W	J : ±5%	NB : Non-burning type
RW : Winding	3A : 1W	K : ±10%	FR : Fuse-resistor
RN : Metal film	3D : 2W	M : ±20%	F : Lead wire forming
RK : Metal mixture	3F : 3W		
	3H : 5W		

* Resistance
1 8 2 ⇒ 1800 ohm = 1.8 kohm
Indicates number of zeros after effective number.
2-digit effective number.

• Units: ohm

1 R 2 ⇒ 1.2 ohm
1-digit effective number.
2-digit effective number, decimal point indicated by R.

• Units: ohm

• Capacitors

Ex.: CE 04W 1H 2R2 M BP
Type Shape Dielectric Capacity Allowable Others

CE : Aluminum foil electrolytic	0J : 6.3V	F : ±1%	HS : High stability type
CA : Aluminum solid electrolytic	1A : 10V	G : ±2%	BP : Non-polar type
CS : Tantalum electrolytic	1C : 16V	J : ±5%	HR : Ripple-resistant type
CQ : Film	1E : 25V	K : ±10%	DL : For charge and discharge
CK : Ceramic	1V : 35V	M : ±20%	HF : For assuring high frequency
CC : Ceramic	1H : 50V	Z : +80%	U : UL part
CP : Oil	2A : 100V	-20%	C : CSA part
CM : Mica	2B : 125V	P : +100%	W : UL-CSA type
CF : Metalized	2C : 160V	-0%	F : Lead wire forming
CH : Metallized	2D : 200V	C : ±0.25pF	
	2E : 250V	D : ±0.5pF	
	2F : 500V	E : ±1pF	
	2G : 630V	F : ±2pF	
	2H : 1000V	G : ±5pF	
	2I : 1600V	H : ±10pF	
	2J : 3300V	I : ±20pF	
	2K : 6300V	J : ±40pF	
	2L : 10000V	K : ±80pF	
	2M : 20000V	L : ±160pF	
	2N : 40000V	M : ±320pF	
	2O : 80000V	N : ±640pF	
	2P : 160000V	O : ±1.28pF	
	2Q : 320000V	P : ±2.56pF	
	2R : 640000V	Q : ±5.12pF	
	2S : 1280000V	R : ±10.24pF	
	2T : 2560000V	S : ±20.48pF	
	2U : 5120000V	T : ±40.96pF	
	2V : 10240000V	U : ±81.92pF	
	2W : 20480000V	V : ±163.84pF	
	2X : 40960000V	W : ±327.68pF	
	2Y : 81920000V	X : ±655.36pF	
	2Z : 163840000V	Y : ±1310.72pF	
	2AA : 327680000V	Z : ±2621.44pF	
	2AB : 655360000V	AA : ±5242.88pF	
	2AC : 1310720000V	AB : ±10485.76pF	
	2AD : 2621440000V	AC : ±20971.52pF	
	2AE : 5242880000V	AD : ±41943.04pF	
	2AF : 10485760000V	AE : ±83886.08pF	
	2AG : 20971520000V	AF : ±167772.16pF	
	2AH : 41943040000V	AG : ±335544.32pF	
	2AI : 83886080000V	AH : ±67108.864pF	
	2AJ : 167772160000V	AI : ±134217.728pF	
	2AK : 335544320000V	AJ : ±268435.456pF	
	2AL : 671088640000V	AK : ±536870.912pF	
	2AM : 1342177280000V	AL : ±107375.584pF	
	2AN : 2684354560000V	AM : ±214751.168pF	
	2AO : 5368709120000V	AN : ±429502.336pF	
	2AP : 10737558400000V	AO : ±859004.672pF	
	2AQ : 21475116800000V	AP : ±1718008.344pF	
	2AR : 42950233600000V	AQ : ±3436016.688pF	
	2AS : 85900467200000V	AR : ±6872033.376pF	
	2AT : 171800834400000V	AS : ±13744066.752pF	
	2AU : 343601668800000V	AT : ±27488133.504pF	
	2AV : 687203337600000V	AU : ±54976267.008pF	
	2AW : 1374406675200000V	AV : ±109952534.016pF	
	2AX : 2748813350400000V	AW : ±219905068.032pF	
	2AY : 5497626700800000V	AX : ±439810136.064pF	
	2AZ : 10995253401600000V	AY : ±879620272.128pF	
	2AA : 21990506803200000V	AZ : ±1759240544.256pF	
	2AB : 43981013606400000V	AA : ±3518481088.512pF	
	2AC : 87962027212800000V	AB : ±7036962176.024pF	
	2AD : 175924054425600000V	AC : ±1407392432.048pF	
	2AE : 351848108851200000V	AD : ±2814784864.096pF	
	2AF : 703696217602400000V	AE : ±5629569728.192pF	
	2AG : 140739243204800000V	AF : ±1125913945.648pF	
	2AH : 281478486409600000V	AG : ±2251827891.296pF	
	2AI : 562956972819200000V	AH : ±4503655782.592pF	
	2AJ : 112591394564800000V	AI : ±9007311565.184pF	
	2AK : 225182789129600000V	AJ : ±18014623130.368pF	
	2AL : 450365578259200000V	AK : ±36029246260.736pF	
	2AM : 900731156518400000V	AL : ±72058492521.472pF	
	2AN : 1801462313036800000V	AM : ±14411698504.352pF	
	2AO : 3602924626073600000V	AN : ±28823397008.704pF	
	2AP : 7205849252147200000V	AO : ±57646794017.408pF	
	2AQ : 1441169850435200000V	AP : ±11529358803.512pF	
	2AR : 2882339700870400000V	AQ : ±23058717607.024pF	
	2AS : 5764679401740800000V	AR : ±46117435214.048pF	
	2AT : 1152935880351200000V	AS : ±92234870428.096pF	
	2AU : 2305871760702400000V	AT : ±18446814085.192pF	
	2AV : 4611743521404800000V	AU : ±36893628170.384pF	
	2AW : 9223487042809600000V	AV : ±73787256340.768pF	
	2AZ : 1844681408519200000V	AW : ±14757451268.136pF	
	2AA : 3689362817038400000V	AZ : ±35514902536.376pF	
	2AB : 7378725634076800000V	AA : ±71029805072.752pF	
	2AC : 1475745126813600000V	AB : ±14305961014.504pF	
	2AD : 3551490253637600000V	AC : ±28611922028.008pF	
	2AE : 7102980507275200000V	AD : ±57223844056.016pF	
	2AF : 1430596101450400000V	AE : ±11444768812.032pF	
	2AG : 2861192202800800000V	AF : ±22889537624.064pF	
	2AH : 5722384405601600000V	AG : ±45779075248.128pF	
	2AI : 1144476881203200000V	AH : ±91558150496.256pF	
	2AJ : 2288953762406400000V	AI : ±18311630092.512pF	
	2AK : 4577907524812800000V	AJ : ±36623260185.024pF	
	2AL : 9155815049625600000V	AK : ±73246520370.048pF	
	2AM : 1831163009251200000V	AL : ±14649304074.096pF	
	2AN : 3662326018502400000V	AM : ±36318608148.192pF	
	2AO : 7324652037004800000V	AO : ±14649304074.096pF	
	2AP : 1464930407409600000V	AP : ±29298608148.192pF	
	2AQ : 3631860814819200000V	AQ : ±73246520370.048pF	
	2AR : 1464930407409600000V	AR : ±14649304074.096pF	
	2AS : 2929860814819200000V	AS : ±36318608148.192pF	
	2AT : 7324652037004800000V	AT : ±73246520370.048pF	
	2AU : 1464930407409600000V	AU : ±14649304074.096pF	
	2AV : 3631860814819200000V	AV : ±73246520370.048pF	
	2AW : 7324652037004800000V	AW : ±14649304074.096pF	
	2AZ : 1464930407409600000V	AZ : ±36318608148.192pF	
	2AA : 2929860814819200000V	AA : ±73246520370.048pF	
	2AB : 7324652037004800000V	AB : ±14649304074.096pF	
	2AC : 1464930407409600000V	AC : ±29298608148.192pF	
	2AD : 3631860814819200000V	AD : ±73246520370.048pF	</

1U-2860A μ-COM UNIT ASS'Y

Ref.No.	Parts No.	Parts Name	Remarks	Q'ty
C245,246	253 4537 982	Ceramic cap. 56pF/50V	CC45SL1H560J	
C251~254	255 1264 982	Mylar film 0.0047μF/50V	CQ93M1H472J(B)	
C255,256	253 4537 924	Ceramic cap. 33pF/50V	CC45SL1H330J	
C301,302	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M	
C303,304	254 4260 980	Electrolytic 10μF/50V	CE04W1H100M	
C309	254 4250 945	Electrolytic 330μF/6.3V	CE04W0J331M	
C311	253 1181 904	Ceramic cap. 0.01μF/50V	CK45F1H103Z	
C312	254 4256 936	Electrolytic 47μF/25V	CE04W1E470M	
C313,314	254 6197 006	Electrolytic 8200μF/56V	CE68W=822MC(DL)	
C315	256 1042 903	Metallized 0.1μF/250V	CF93A2E104K	
C316	254 4263 916	Electrolytic 0.22μF/100V	CE04W2AR22M	
C317	253 9039 906	BC Ceramic cap. 0.1μF/25V	CK45=1E104Z	
OTHER GROUP				Q'ty
L001,002	235 9003 002	(P.W.board)		(1)
L201,202	235 0104 007	FTZ choke coil		2
		Inductor 1 μH		2
SW001	212 9520 003	1 p push switch	S.Direct	1
RL301	214 0129 001	Relay(DH2TU)		1
	204 8497 000	4 p pin jack(GND)(K)		4
CN001	205 0666 007	10 p conn. base(9130)		1
	205 0233 045	4 p EH Connector Base		1
	203 5114 008	3 p SCN-SCN Connector Cord		1
	203 5115 007	3 p SCN Connector Cord		1
	205 0233 032	3 p EH Connector Base		1
	203 0632 022	1 p SIN Cord Ass'y		1
	203 0632 006	1 p SIN Cord Ass'y		1
	203 0632 019	1 p SIN Cord Ass'y		1
	205 0275 029	12 p EH Connector Base		1
EP- 5667 H2	212 4789 001	Terminal	L=20	10
415 0309 071	253 9039 906	PVC tube (L=10)	for TR207,208	4

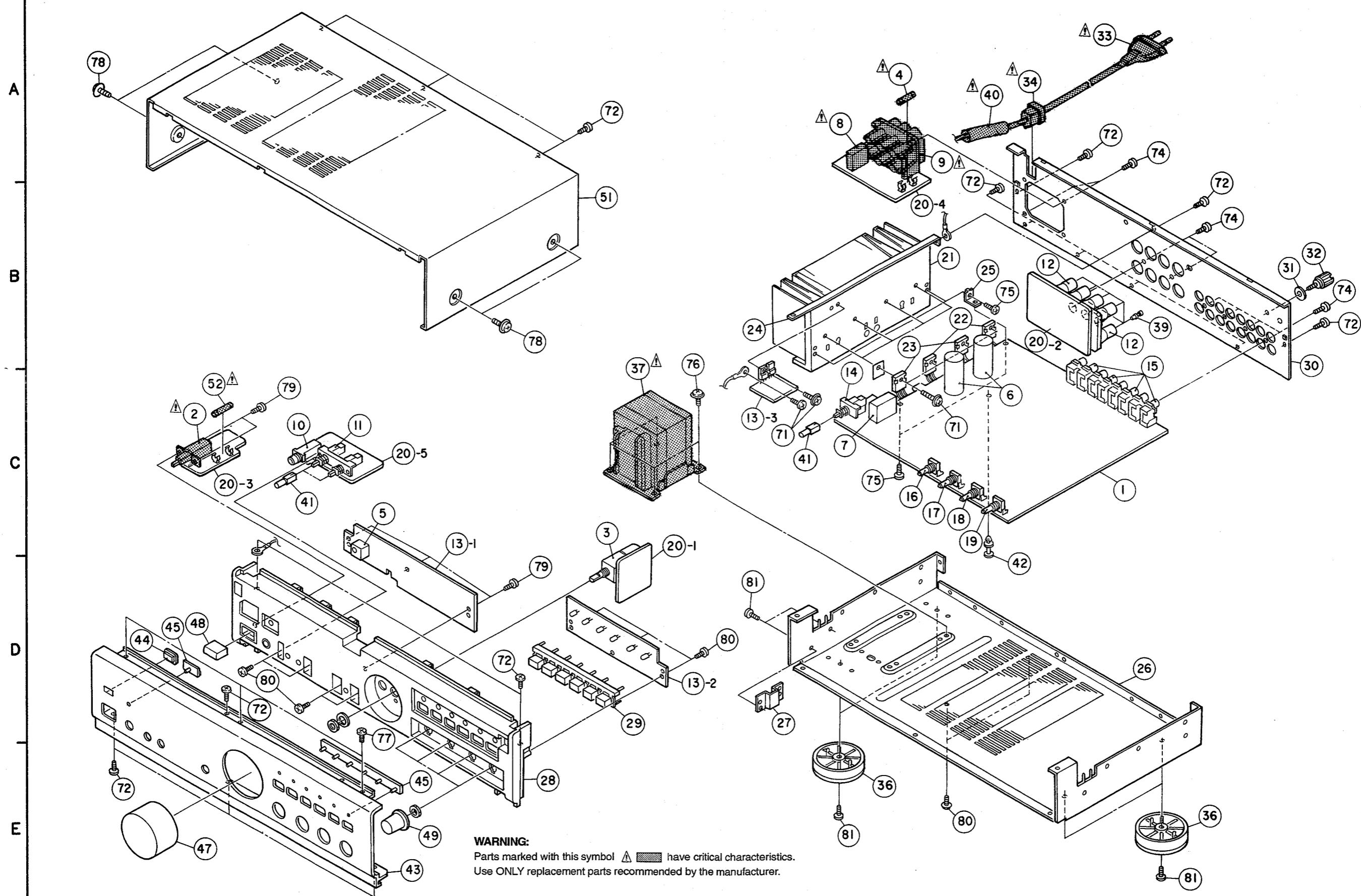
Ref.No.	Parts No.	Parts Name	Remarks	Q'ty
SEMICONDUCTORS GROUP				
IC101	262 2168 001	IC HD404222	μ-com	
IC104	263 0793 002	IC NJM7806FA(S)	Regulator +6V	
IC105	499 0150 008	IC SBX1610-52	Remocon sensor	
TR104	269 0020 906	Transistor DTC114ES	Built in resistor	
TR106	273 0388 906	Transistor 2SC1740S(E)		
TR181,182	269 0160 002	Transistor DTC143ZSA	Built in resistor	
TR307	274 0120 002	Transistor 2SD1762(E/F)		
D104,105	276 0616 907	Diode 1SS252		
D106,107	276 0553 905	Diode 1SR35-200A		
D110	276 0616 907	Diode 1SS252		
ZD101	276 0634 905	Zener diode MTZJ3.3A	3.3V	
ZD305	276 0645 907	Zener diode MTZJ18A	18V	
LD101	393 9453 903	LED SEL1810A	Orange	
LD102~107	393 9434 906	LED SEL1210S	Red	
P401	279 0034 067	Posistor		
		PTH9M04BB222TS2F333		
RESISTORS GROUP				
△R141	241 2387 940	Carbon Film 4.7 ohm 1/4 W(NB)	RD14B2E4R7JNBS	
C101	253 1181 904	Ceramic cap. 0.01μF/50V	CK45F1H103Z	
C103	254 4250 929	Electrolytic 100μF/6.3V	CE04W0J101M	
C104	254 4260 058	Electrolytic 2.2μF/50V	CE04W1H2R2H	
C105	256 1034 982	Metallized 0.12μF/50V	CF93A1H124J	
C106	254 4250 932	Electrolytic 220μF/6.3V	CE04W0J221M	
C107	254 4250 084	Electrolytic 3300μF/6.3V	CE04W0J332M	
C108	255 1265 936	Mylar Film 0.01μF/50V	CQ93M1H103J(B)	
C111,112	254 4260 948	Electrolytic 1μF/50V	CE04W1H010M	
C114	253 9039 906	BC Ceramic cap. 0.1μF/25V	CK45=1E104Z	
C120	254 4260 919	Electrolytic 0.22μF/50V	CE04W1HR22M	
C306	253 1181 904	Ceramic cap. 0.01μF/50V	CK45F1H103Z	
OTHER GROUP				Q'ty
SW101~106	212 4789 001	(P.W.board)		(1)
XL101	399 0191 903	Tact switch(kyung)		6
		Ceramic resonator	CST4.00MGW-TF01	1
	415 0309 026	PVC tube (L=20)	for P401	2
	205 0233 090	9 p EH Conector Base		1
	205 0275 029	12 p EH Conector Base		1
	204 2747 002	9 p EH-SCN Connector Cord		1
	203 6475 005	4 p EH-SCN Connector Cord		1
	203 0633 018	1 p Contact Ass'y		1

1U-2879 VOLUME UNIT ASS'Y

Ref.No.	Parts No.	Parts Name	Remarks	Q'ty
SEMICONDUCTORS GROUP				
IC103	263 0927 001	IC BA6208S		
D108	276 0616 907	Diode 1SS252		
D305	276 0616 907	Diode 1SS252		
RESISTORS GROUP				
△R263,264	244 2052 931	Metal oxide 390 ohm 1W	RS14B3A391JNBS(S)	
VR401	211 0857 002	Variable resister 100 kohm	Main	
CAPACITORS GROUP				
C076	253 1181 904	Ceramic cap. 0.01μF/50V	CK45F1H103Z	
C229~232	255 1264 982	Mylar film 0.0047μF/50V	CQ93M1H472J(B)	
C235,236	253 1181 904	Ceramic cap. 0.01μF/50V	CK45F1H103Z	
C237	253 9039 906	BC Ceramic cap. 0.1μF/25V	CK45=1E104Z	
△C317,318	256 8003 713	Ceramic cap. 4700pF/400V	CK45E2GAC472MC	
OTHER GROUP				
SW201	212 4778 009	(P.W.board)		(1)
SW301	212 1030 009	2 p push switch	Speaker	1
△RL302	214 0142 004	Power switch (TV-5)	Power	1
F302	206 1015 058	Fuse 1.6A		1
△F303	206 1015 029	Fuse 1 AT		1
	202 0022 008	Fuse Holder		4
	204 8503 004	Headphone jack(K)		1
	205 0952 009	4 p sp terminal		2
	203 3950 002	3 p AC outlet		1
CB001	205 0667 006	10 p conn. base-L(9130)		1
CN302,303	205 0692 000	2 p wrapping terminal		2
EP-5667 H2	212 4789 001	Terminal	L=20	3
415 0299 000	212 4789 001	Capacitor Cover	for C317, 318	2
203 0633 005	212 4789 001	1 p Contact Ass'y		2
203 2375 002	212 4789 001	2 p SCN Conn, Cord		1
203 6476 004	212 4789 001	4 p SCH-SCH Conn, Cord		1
203 5116 006	212 4789 001	3 p EH-SCN Conn, Cord		1

EXPLODED VIEW OF CHASSIS AND CABINET

1 1 2 1 3 1 4 1 5 1 6 1 7 1 8



PARTS LIST OF EXPLODED VIEW

Ref.No.	Parts No.	Parts Name	Remarks	Q'ty	Ref.No.	Parts No.	Parts Name	Remarks	Q'ty
◎ 1	1U-2859 A	Main unit Ass'y		1s		113 1745 110	Push button (Round)	Gold model	3
△ 2	212 1030 009	Power switch (TV-5)		1	◎ 42	412 1979 029	P.C.B. holder		1
3	211 0857 002	Variable resistor 100 kohm	Main VR401	1	43	144 2456 101	Front panel	Black model	1
△ 4	206 1015 029	Fuse 1.6A	F303	1	44	144 2456 114	Front panel	Gold model	1
5	499 0150 008	Remocon sensor SBX1610-52	IC105	1	45	143 9181 007	Remocon window		1
6	254 6197 006	Chemicon 8200μF/56 V	C313,314	2	★ 46	445 8004 007	Wire clamer		10
7	214 0129 001	Relay (DH2TU)	RL301	1	47	112 0761 008	VR knob	Black model	1
△ 8	214 0142 004	Relay (TV-5)	RL302	1		112 0761 011	VR knob	Gold model	1
△ 9	203 3950 002	3p AC outlet		1	48	113 1738 101	Power button	Black model	1
10	204 8503 004	:Headphone jack		1		113 1738 114	Power button	Gold model	1
11	212 4778 009	2p push switch	Speaker SW201	1	49	112 0762 007	:Knob(Round)	Black model	4
12	205 0952 009	4p speaker terminal		2		112 0762 010	:Knob(Round)	Gold model	4
◎ 13	1U-2860 A	μ-com unit Ass'y		1s	★ 50	412 2814 015	Card spacer (L=14)		2
13-1	-	μ-com unit		(1)	51	102 0567 001	:Top cover	Black model	1
13-2	-	LED & switch unit		(1)		102 0567 014	:Top cover	Gold model	1
13-3	-	Regulator unit		(1)	△ 52	206 1015 058	Fuse 1.6A	F302	1
14	212 9520 003	1p push switch	S.Direct SW001	1	★ 53	513 2433 003	Serial No. Sheet		1
15	204 8497 000	4p pin jack(GND)(K)			54				
16	211 0798 103	Variable resistor 100 kohm	Balance VR001	1	55				
17	211 0797 117	Variable resistor 30 kohm	Bass VR002	1					
18	211 0797 133	Variable resistor 10 kohm	Treble VR003	1					
19	211 0830 003	Variable resistor 100 kohm	Loudness VR004	1					
◎ 20	1U-2879	Volume unit Ass'y		1s					
20-1	-	Volume unit		(1)	71	473 8007 009	Cup screw 3×12		7
20-2	-	SP terminal unit		(1)	72	473 7015 018	Tapping screw(S)3×8 Black		14
20-3	-	Power switch unit		(1)	73	-	-		
20-4	-	AC outlet unit		(1)	74	477 0064 107	Fixing screw		10
20-5	-	Headphone,sp sw unit		(1)	75	473 7002 018	Tapping screw(S)3×8		8
21	417 0519 003	:Power radiator		1	76	473 7004 016	Tapping screw(S)4×6		6
22	271 0283 005	Transistor 2SA1633 (E/F)	TR217,218	2	77	473 7508 017	Tapping screw(P)3×10 Black		3
23	273 0443 003	Transistor 2SC4278 (E/F)	TR215,216	2	78	477 0263 005	3 P Swelling screw	Black model	4
24	412 3999 007	:Radiator bracket		1		477 0263 018	3 P Swelling screw	Gold model	4
25	412 4000 005	:P.W.B. bracket(A)		2	79	473 7508 004	Tapping screw(P)3×6 Black		2
26	411 0941 505	:Chassis		1	80	473 7500 044	Tapping screw(P)3×8 Black		12
◎ 27	412 4001 004	:Side bracket		1	81	473 7002 034	Tapping screw(S)3×6 Black		7
◎ 28	146 1572 105	:Inner panel	Black model	1	82				
	146 1572 118	:Inner panel	Gold model	1					
29	113 1739 003	:Function button	Black model	1					
	113 1739 016	:Function button	Gold model	1					
◎ 30	105 1169 203	:Rear panel		1	101	GEN 3213	Envelope sub. Ass'y		1s
31	477 0018 001	Washer (P-87)		1	101-1	505 8006 019	Envelope		(1)
32	205 0071 016	Terminal Ass'y	GND	1	101-2	511 2774 009	:Inst. manual	E,G,F,I,ES,NL,S,PO	(1)
△ 33	206 2063 009	AC cord with plug		1	101-3	499 0277 004	Remote control	RC-176	(1)
△ 34	445 0056 008	Cord bush		1	101-4	-	Batteries		(2)
★ 35	513 1144 005	Masking sheet		1	102	505 8092 010	Laminate envelope		1
36	104 0282 007	:Foot Ass'y		4	103	503 1191 103	:Cushion		2
△ 37	233 6173 007	:Power trans.		1	104	501 1889 008	:Carton case		1
★ 38	475 1175 002	:Washer		1	105	513 9111 001	Color label (Gold)	Gold model only	2
39	477 0096 007	Push rivet		8	106				
△ 40	415 0364 032	U.L tube (ø8.3)	for AC cord	1					
41	113 1745 107	:Push button (Round)	Black model	3					

NOTE FOR PARTS LIST

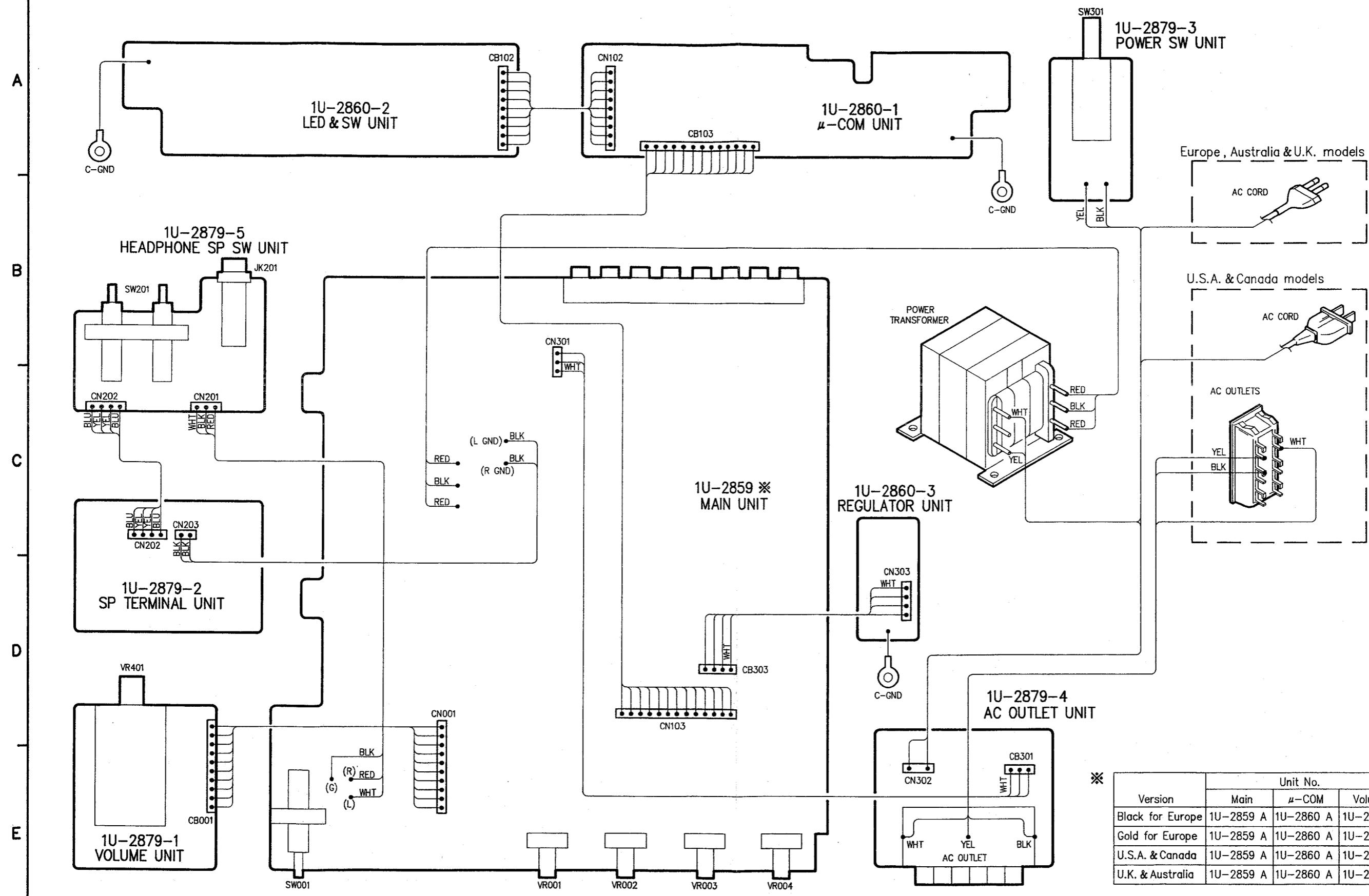
- Part indicated with the mark "◎" are not always in stock and possibly to take a long period of time for supplying, or in some case supplying of part may be refused.
- When ordering of part, clearly indicate "1" and "I" (i) to avoid mis-supplying.
- Ordering part without stating its part number can not be supplied.
- Part indicated with the mark "★" is not illustrated in the exploded view.

WARNING:

Parts marked with this symbol  have critical characteristics.
Use ONLY replacement parts recommended by the manufacturer.

WIRING DIAGRAM

1 1 2 1 3 1 4 1 5 1 6 1 7 1 8



Version	Unit No.		
	Main	μ-COM	Volume
Black for Europe	1U-2859 A	1U-2860 A	1U-2879 A
Gold for Europe	1U-2859 A	1U-2860 A	1U-2879 A
U.S.A. & Canada	1U-2859 A	1U-2860 A	1U-2879 D
U.K. & Australia	1U-2859 A	1U-2860 A	1U-2879 E

SCHEMATIC DIAGRAM

1

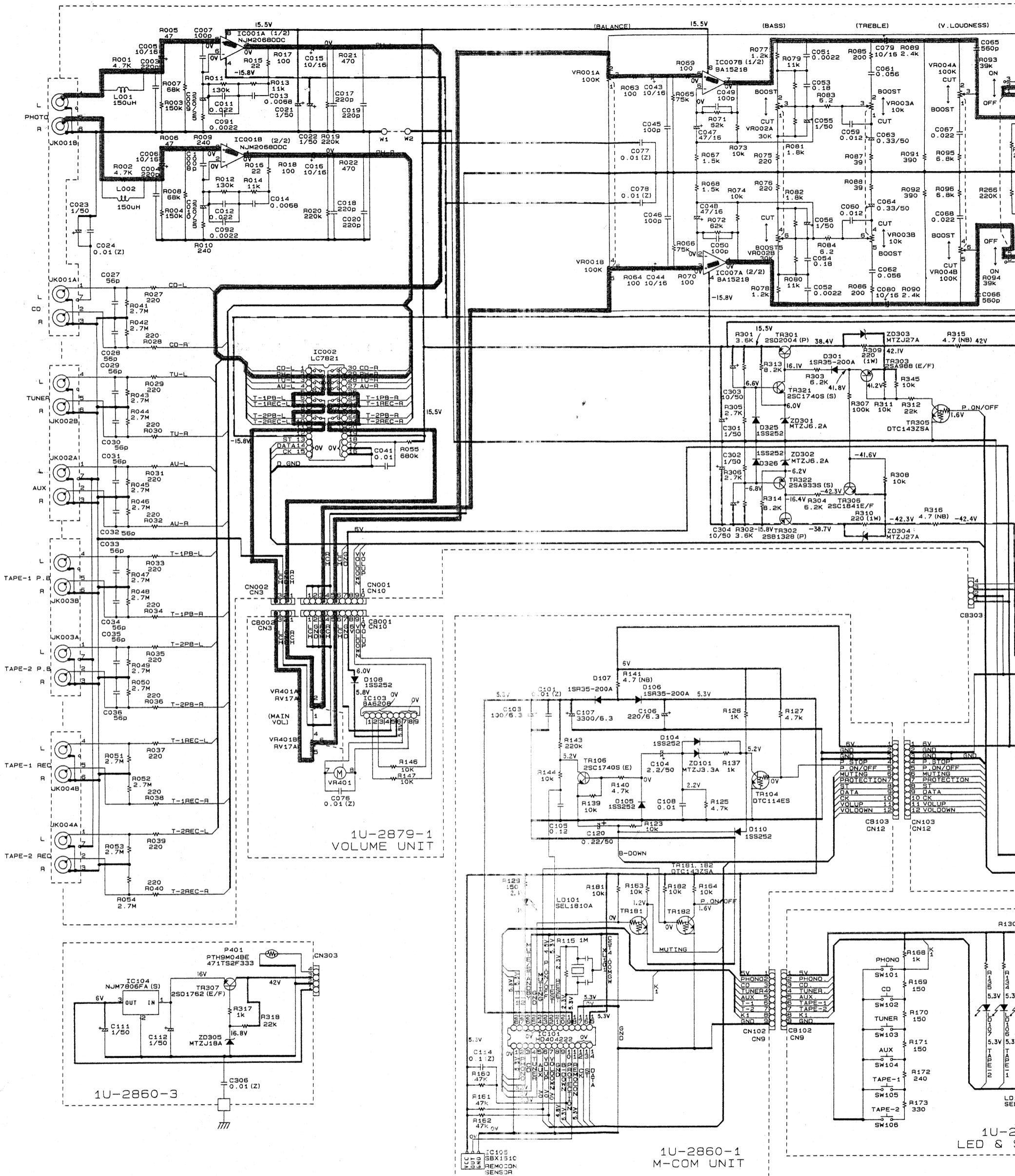
2

3

4

5

6

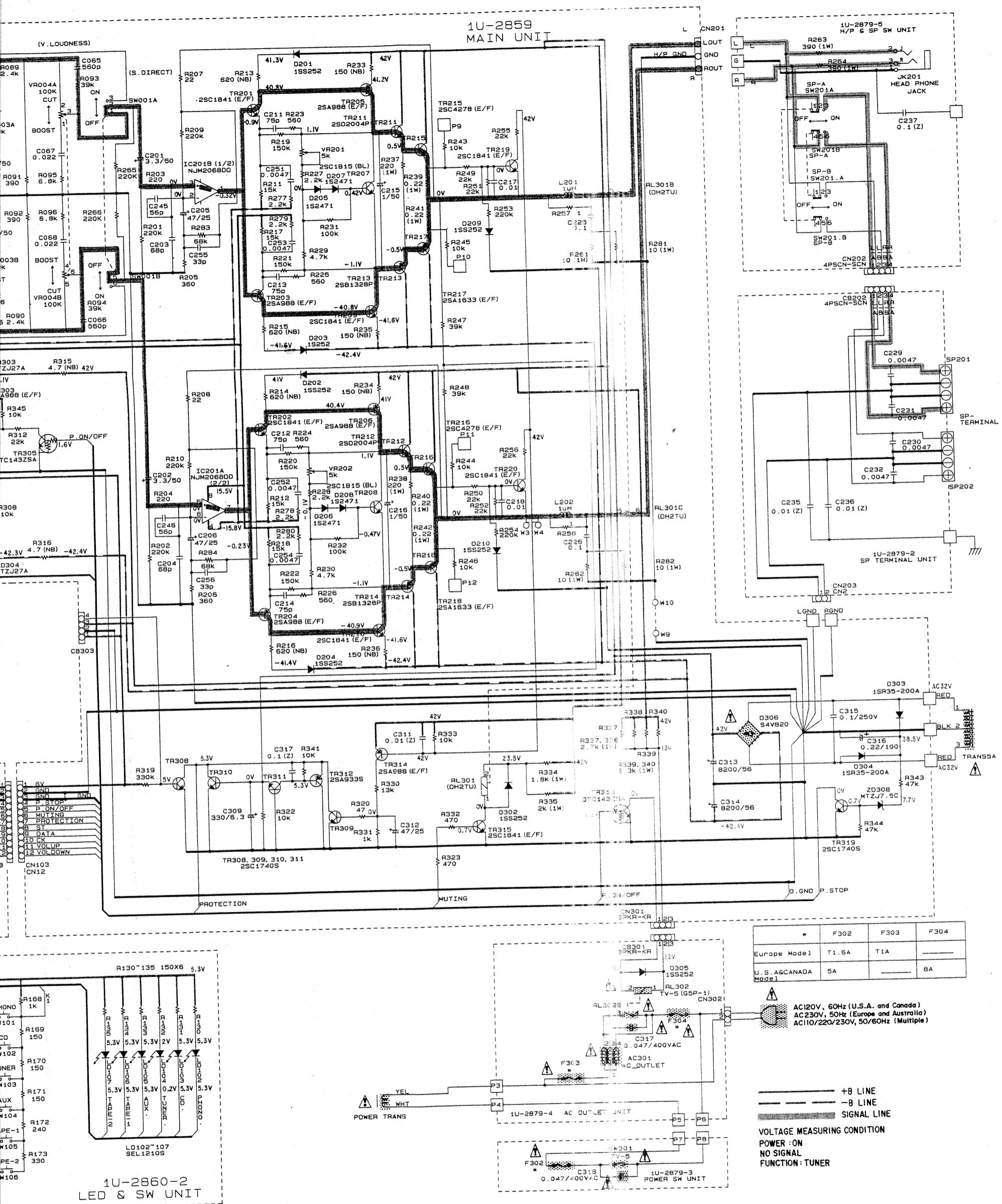


WARNING:
Parts marked with this symbol  

Use ONLY replacement parts recom-

WARNING:
DO NOT return the unit to the customer.

REMARKS:
Current and Parts are subject to change



WARNING: Parts marked with this symbol have critical characteristics.

CAUTION: Before returning the unit to the customer, make sure you make either (1) a leakage current check or (2) a line to chassis resistance check. If the leakage current is greater than 2.12 milliamperes or the line to chassis resistance is less than 2.12 kilohms, the unit is defective.

WARNING: Do not attempt to repair the unit until the problem is located and corrected.

DO NOT return the unit to the customer until the problem is fixed.

REMARKS: Customer and Parts are subject to change without prior notice.

NOTES
ALL RESISTANCE VALUES IN OHM. K=1,000 OHM, M=1,000,000 OHM
ALL CAPACITANCE VALUES IN MICRO FARAD. P=MICRO-MICRO FARAD
EACH VOLTAGE AND CURRENT ARE MEASURED AT NO SIGNAL INPUT CONDITION.
CIRCUIT AND PARTS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE.